

1           1.       In a telephone network that includes a telephonic device that is network  
2 connectable to a call control server, the call control server configured to recognize and  
3 respond to commands issued by the telephonic device to thereby accomplish telephonic  
4 tasks, a method for allowing call control using data commands provided over a data line,  
5 the method comprising the following:

6           a specific act of receiving a call control command from a data line;  
7           a specific act of interpreting the call control command;  
8           a specific act of determining one or more acts that would need to be accomplished  
9 to comply with the call control command; and  
10          a specific act of implementing the one or more acts on one or more voice lines or  
11 one or more data lines.

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13          2.       A method in accordance with Claim 1, further comprising the following:  
14          a specific act of scheduling the one or more acts.

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16          3.       A method in accordance with Claim 2, wherein the specific act of  
17 scheduling the one or more acts comprises the following:

18          a specific act of placing one or more higher priority acts of the one or more acts in a  
19 queue for expedited execution; and

20          a specific act of placing one or more lower priority acts of the one or more acts in a  
21 database for delayed execution.

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23          4.       A method in accordance with Claim 3, further comprising the following:  
24          a specific act of executing the one or more higher priority acts; and

1 a specific act of executing the acts in the database after the queue has been emptied.

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3 5. A method in accordance with Claim 1, wherein the call control command is  
4 a first call control command, wherein the one or more acts are a first set of one or more  
5 acts, the method further comprising the following:

6 a specific act of receiving a second call control command from a voice line;

7 a specific act of interpreting the second call control command;

8 a specific act of determining a second group of one or more acts that would need to  
9 be accomplished to comply with the second call control command; and

10 a specific act of implementing the second group of one or more acts.

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12 6. A method in accordance with Claim 1, wherein the specific act of receiving  
13 the call control command from a data line comprises the following:

14 receiving the call control command from the data line via a Telephony Application  
15 Program Interface.

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1           7.     In a telephone network that includes a telephonic device that is network  
2 connectable to a call control server, the call control server configured to recognize and  
3 respond to commands issued by the telephonic device to thereby accomplish telephonic  
4 tasks, a method for allowing call control using data commands provided over a data line,  
5 the method comprising the following:

6                 a specific act of receiving a call control command from a data line; and  
7                 a step for processing so as to fulfill the call control command on one or more voice  
8 lines or one or more data lines.

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10           8.     A method in accordance with Claim 7, wherein the step for processing so as  
11 to fulfill the call control command comprises the following:

12                 a specific act of interpreting the call control command;  
13                 a specific act of determining one or more acts that would need to be accomplished  
14 to comply with the call control command; and  
15                 a specific act of implementing the one or more acts on one or more voice lines.

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1           9.     A computer program product for use in a telephone network that includes a  
2 telephonic device that is network connectable to a call control server, the call control  
3 server configured to recognize and respond to commands issued by the telephonic device  
4 to thereby accomplish telephonic tasks, the computer program product for allowing call  
5 control using data commands provided over a data line, the computer program product  
6 comprising one or more computer-readable media having stored thereon the following:

7           computer-executable instructions for detecting the receipt of a call control  
8 command from a data line;

9           computer-executable instructions for interpreting the call control command;

10          computer-executable instructions for determining one or more acts that would need  
11 to be accomplished to comply with the call control command; and

12          computer-executable instructions for implementing the one or more acts on one or  
13 more voice lines or one or more data lines.

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15          10.    A computer program product in accordance with Claim 9, wherein the  
16 computer-readable medium is one or more physical storage media.  
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1 11. A call control server configured to recognize and respond to commands  
2 issued by the telephonic device to thereby accomplish telephonic tasks, the call control  
3 server comprising the following:

4 one or more data lines;

5 one or more voice lines; and

6 means for processing a call control command received on one of the data lines so as  
7 to implement the call control command on one or more voice lines or one or more data  
8 lines.

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10 12. A call control server in accordance with Claim 11, further comprising the  
11 following:

12 a queue for storing higher priority acts received from the command interpreter for  
13 more immediate execution; and

14 a database for storing lower priority acts received from the command interpreter for  
15 less immediate execution.  
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1 13. A call control server configured to recognize and respond to commands  
2 issued by the telephonic device to thereby accomplish telephonic tasks, the call control  
3 server comprising the following:

4 one or more data lines;

5 one or more voice lines;

6 a command interpreter configured to interpret call control commands received over  
7 at least the data lines; and

8 an action scheduler configured to implement one or more acts needed to implement  
9 the call control commands on the voice lines or the data lines.

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11 14. A call control server in accordance with Claim 13, wherein the command  
12 interpreter is configured to prioritize the one or more acts.

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14 15. A call control server in accordance with Claim 14, further comprising the  
15 following:

16 a queue for storing higher priority acts received from the command interpreter for  
17 more immediate execution.

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19 16. A call control server in accordance with Claim 14, further comprising the  
20 following:

21 a database for storing lower priority acts received from the command interpreter for  
22 less immediate execution.

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1 17. In a telephone network that includes a telephonic device that is network  
2 connectable to a call control server, the call control server configured to recognize and  
3 respond to commands issued by the telephonic device to thereby accomplish telephonic  
4 tasks, a method for allowing a human to use a set of commands that are more intuitive to  
5 the human in order to control the call control server, even though the call control server  
6 does not directly recognize the intuitive set of commands, the method comprising the  
7 following:

8 a specific act of receiving a function call issued by a set of one or more program  
9 modules, wherein the function call represents a request for the call control server to  
10 emulate a telephonic scenario, the request being in a form that is not recognized by the call  
11 control server; and

12 a specific act of translating the request into a form that is recognized by the call  
13 control server.

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15 18. A method in accordance with Claim 17, wherein the method is implemented  
16 on the same machine as the call control server, the method further comprising the  
17 following:

18 a specific act of passing the translated request to the call control server.

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20 19. A method in accordance with Claim 17, wherein the method is implemented  
21 on a different machine as the call control server, the method further comprising the  
22 following:

23 a specific act of transmitting the translated request to the call control server.

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20. A method in accordance with Claim 17, wherein the specific act of translating the request into a form that is recognized by the call control server comprises the following:

a specific act of translating the request into a sequence represented by the characters of a telephonic keypad including the characters 0 through 9, # and \*.

21. A method in accordance with Claim 17, wherein the specific act of translating the request into a form that is recognized by the call control server comprises the following:

a specific act of translating the request into a DTMF sequence.

22. A method in accordance with Claim 17, wherein the function call includes a handle that identified a connection with the call control server.

23. A method in accordance with Claim 17, wherein the function call comprises a request to stay connected for a predetermined period of time.

24. A method in accordance with Claim 23, wherein the request to stay connect for a predetermined period of time comprises the following:

a first field representing the time that the call control server should remain connected before hanging up.



1       25.    A method in accordance with Claim 24, wherein the request is generated  
2 from source code that takes the form `BOOL CCCStayConnected(HCALL hcall,`  
3 `CCCParam &cccParam).`

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5       26.    A method in accordance with Claim 17, wherein the function call comprises  
6 a request to have the call control server call back.

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8       27.    A method in accordance with Claim 26, wherein the request to have the call  
9 control server call back comprises the following:

- 10       a first field representing a telephone number to call back;  
11       a second field representing an interval between call backs; and  
12       a third field representing a period of time over which to call back.

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14       28.    A method in accordance with Claim 27, wherein the request is generated  
15 from source code that takes the form `BOOL CCCOrderCallBack(HCALL hcall,`  
16 `CCCParam &cccParam).`

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18       29.    A method in accordance with Claim 17, wherein the function call comprises  
19 a request to echo data.

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21       30.    A method in accordance with Claim 29, wherein the request to echo data  
22 comprises the following:

- 23       a first field representing the data to echo; and  
24       a second field representing the number of times to echo.

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31. A method in accordance with Claim 30, wherein the request is generated from source code that takes the form `BOOL CCCEcho(HCALL hcall, CCCParam &cccParam)`.

32. A method in accordance with Claim 17, wherein the function call comprises a request to download a file.

33. A method in accordance with Claim 32, wherein the request to download a file comprises the following:

a first field representing the name of the file to be downloaded.

34. A method in accordance with Claim 33, wherein the request takes the form `BOOL CCCDownload(HCALL hcall, LPCTSTR & szFileName)`.

35. A method in accordance with Claim 17, wherein the function call comprises a request to add a client telephonic device to a call list of the call control server.

36. A method in accordance with Claim 35, wherein the request to add a client telephonic device to a call list of the call control server comprises the following:

a first field representing a telephone number of the client telephonic device;

a second field representing how long the call control server should keep the telephone number; and

a third field representing actions that the client telephonic device is interested in.

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37. A method in accordance with Claim 36, wherein the request takes the form  
BOOL CCCAddClient(HCALL hcall, CCCParam &cccParam, ActionInterest actMask).

38. A method in accordance with Claim 17, wherein the function call is  
generated by a user-entered data in a command line.

39. A method in accordance with Claim 38, wherein the function call is for a  
teleconference to be initiated.

40. A method in accordance with Claim 39, wherein the user-entered data is of  
the form CCSMakeConf followed by an identification of two lines that are to be involved  
in the teleconference.

41. A method in accordance with Claim 38, wherein the function call is for the  
call control server to call back.

42. A method in accordance with Claim 41, wherein the user-entered data is of  
the form CCSCallBack followed by an identification of a telephone number to call back.

1           43.    In a telephone network that includes a telephonic device that is network  
2 connectable to a call control server, the call control server configured to recognize and  
3 respond to commands issued by the telephonic device to thereby accomplish telephonic  
4 tasks, a method for allowing a human to use a set of commands that are more intuitive to  
5 the human in order to control the call control server, even though the call control server  
6 does not directly recognize the intuitive set of commands, method comprising the  
7 following:

8           a specific act of generating a function call that represents a request for the call  
9 control server to emulate a telephonic scenario, the request being in a form that is not  
10 recognized by the call control server; and

11           a specific act of passing the function call to a set of one or more program modules  
12 for translation of the request into a form that is recognized by the call control server.  
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14           44.    A method in accordance with Claim 43, wherein the function call includes a  
15 handle that identified a connection with the call control server.  
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17           45.    A method in accordance with Claim 43, wherein the function call comprises  
18 a request to stay connected for a predetermined period of time.  
19

20           46.    A method in accordance with Claim 45, wherein the request to stay connect  
21 for a predetermined period of time comprises the following:

22           a first field representing the time that the call control server should remain  
23 connected before hanging up.  
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1 47. A method in accordance with Claim 46, wherein the request is generated  
2 from source code that takes the form `BOOL CCCStayConnected(HCALL hcall,`  
3 `CCCParam &cccParam).`  
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5 48. A method in accordance with Claim 43, wherein the function call comprises  
6 a request to have the call control server call back.  
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8 49. A method in accordance with Claim 48, wherein the request to have the call  
9 control server call back comprises the following:

10 a first field representing a telephone number to call back;  
11 a second field representing an interval between call backs; and  
12 a third field representing a period of time over which to call back.  
13

14 50. A method in accordance with Claim 49, wherein the request is generated  
15 from source code that takes the form `BOOL CCCOrderCallBack(HCALL hcall,`  
16 `CCCParam &cccParam).`  
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18 51. A method in accordance with Claim 43, wherein the function call comprises  
19 a request to echo data.  
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21 52. A method in accordance with Claim 51, wherein the request to echo data  
22 comprises the following:

23 a first field representing the data to echo; and  
24 a second field representing the number of times to echo.

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53. A method in accordance with Claim 52, wherein the request is generated from source code that takes the form `BOOL CCCEcho(HCALL hcall, CCCParam &cccParam)`.

54. A method in accordance with Claim 43, wherein the function call comprises a request to download a file.

55. A method in accordance with Claim 54, wherein the request to download a file comprises the following:

a first field representing the name of the file to be downloaded.

56. A method in accordance with Claim 55, wherein the request takes the form `BOOL CCCDownload(HCALL hcall, LPCTSTR & szFileName)`.

57. A method in accordance with Claim 43, wherein the function call comprises a request to add a client telephonic device to a call list of the call control server.

58. A method in accordance with Claim 57, wherein the request to add a client telephonic device to a call list of the call control server comprises the following:

a first field representing a telephone number of the client telephonic device;

a second field representing how long the call control server should keep the telephone number; and

a third field representing actions that the client telephonic device is interested in.

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59. A method in accordance with Claim 58, wherein the request takes the form  
BOOL CCCAddClient(HCALL hcall, CCCParam &cccParam, ActionInterest actMask).

1           60.    A computer program product for use in a telephone network that includes a  
2 telephonic device that is network connectable to a call control server, the call control  
3 server configured to recognize and respond to commands issued by the telephonic device  
4 to thereby accomplish telephonic tasks, the computer program product for allowing a  
5 human to use a set of commands that are more intuitive to the human in order to control  
6 the call control server, even though the call control server does not directly recognize the  
7 intuitive set of commands, the computer program product comprising one or more  
8 computer-readable media having stored thereon the following:

9           computer-executable instructions for receiving a function call issued by a set of one  
10 or more program modules, wherein the function call represents a request for the call  
11 control server to emulate a telephonic scenario, the request being in a form that is not  
12 recognized by the call control server; and

13           computer-executable instructions for translating the request into a form that is  
14 recognized by the call control server.

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16           61.    A computer program product in accordance with Claim 60, wherein the  
17 computer-readable medium is one or more physical storage media.

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19           62.    A computer program product in accordance with Claim 60, wherein the  
20 computer-readable medium further has stored thereon the following:

21           computer-executable instructions for causing the translated request to be accessible  
22 to the call control server.

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1           63.    A computer program product for use in a telephone network that includes a  
2 telephonic device that is network connectable to a call control server, the call control  
3 server configured to recognize and respond to commands issued by the telephonic device  
4 to thereby accomplish telephonic tasks, the computer program product for allowing a  
5 human to use a set of commands that are more intuitive to the human in order to control  
6 the call control server, even though the call control server does not directly recognize the  
7 intuitive set of commands, the computer program product comprising one or more  
8 computer-readable media having stored thereon the following:

9           computer-executable instructions for generating a function call that represents a  
10 request for the call control server to emulate a telephonic scenario, the request being in a  
11 form that is not recognized by the call control server; and

12           computer-executable instructions for passing the function call to a set of one or  
13 more program modules for translation of the request into a form that is recognized by the  
14 call control server.

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16           64.    A computer program product in accordance with Claim 63, wherein the  
17 computer-readable medium is one or more physical storage media.